




west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345
Phone: 304 926 0475 • Fax: 304 926 0479

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

MEMORANDUM

To: Beverly McKeone, P.E., NSR Program Manager

From: Ed Andrews, P.E., Engineer 

Date: February 3, 2017

Subject: Class II Administrative Update of R13-3149
Gestamp West Virginia, LLC
039-00642

On November 21, 2016, Gestamp West Virginia, LLC (Gestamp) filed a Class II Administrative Update Request of Permit R13-3149, which included the appropriate filing fee. This request is for the after-the-fact installation of additional hot stamping line and emergency generator. To satisfy the requirements of 45 CSR 13, Gestamp published a class I legal on in the Charleston Gazette on November 23, 2016.

The additional hot stamping line is identical to the other 6 lines currently permitted under R13-3149. This line is fired with natural gas at a maximum heat input rate of 7.2 MMBtu/hr. The combustion related emissions are presented in the following table.

Table #1 – Combustion Emissions from the Hot Stamping Line			
Source	Additional Hot Stamping Line		
Maximum Total Heat Input	MM Btu/hr	7.2	
Pollutant	Emission Factor (lb/10 ⁶ SCF of NG)	lbs./hour	Annual Emissions (tpy)
Particulate Matter (PM/PM ₁₀ /PM _{2.5})	7.6	0.05	0.22
Sulfur Dioxide (SO ₂)	0.6	0.00	0.00
Oxides of Nitrogen (NO _x)	100	0.72	3.15
Carbon Monoxide (CO)	84	0.6	2.63
Volatile Organic Compounds (VOCs)	5.5	0.04	0.18
Total HAPs	1.89	0.01	0.04
Carbon Dioxide Equivalent* (CO ₂ e)	117.098 lb/MMBtu	843.11	3,692.82

The other metal process source was original permitted at maximum capacity of the individual emission unit (i.e. laser trimmers, continuous shot blast machine). Thus, no evaluation of the downstream process units was conducted to determine if any increase of potential emissions would occur.

Table #4 – Combustion Emissions from the engine for the New Emergency Generator

Source		Emissions from the New Engine	
Power output bhp @1800 rpm		77.3	Annual
Pollutant	Emission Factor gm/hp-hr	lbs./hour	tpy
Particulate Matter (PM/PM ₁₀ /PM _{2.5})		0.13	0.03
Sulfur Dioxide (SO ₂)		0.00	0.00
Oxides of Nitrogen (NO _x)	6.9	1.17	0.29
Carbon Monoxide (CO)	34.5	5.87	1.47
Volatile Organic Compounds (VOCs)	2.0	0.34	0.09
Total HAPs		0.02	0.01
Carbon Dioxide Equivalent* (CO _{2e})		77.23	19.31

Presented in the following table is summary of the increase in potential emissions from the two additional emission units and the change in the facility PTE.

Table #3 – Facility Wide Emissions by Source

Pollutant	New Hot Stamping Line (26S) (tpy)	New Generator (tpy)	Total from the New Sources (tpy)	Facility Existing Permitted (tpy)	Total (tpy)
PM/PM ₁₀ /PM _{2.5}	0.22	0.03	0.25	13.01	13.26
SO ₂	0.00	0.00	0.00	0.36	0.36
NO _x	3.15	0.29	3.44	44.17	47.61
CO	2.63	1.47	4.10	43.97	48.07
VOCs	0.18	0.09	0.27	2.83	3.10
Total HAPs	0.04	0.01	0.05	1.33	1.38
CO _{2e}	3,692.82	19.31	3,712.13	72,522.77	76,234.90

The increase of emissions from these new sources are less than the “modification” threshold vales as defined in 45 CSR 13 (6 lb/hr and 10 tons per year). Thus, Gestamp request to process this application under the Class II Administrative Update process under 45 CSR 13 is appropriate. These sources do not trigger any new applicable requirements that was addressed during the review of Permit Application R13-3149. Also, these new sources and corresponding increase in potential emissions does not affect the facility’s status as a minor source for criteria pollutants and area source of hazardous air pollutants. Therefore, the South Charleston facility is not subject to 45 CSR 30 and remains as a “9M” source under 45 CSR 22.

No add on controls are required for these sources and the existing monitoring as developed in R13-3149 remain acceptable means to demonstrate compliance with these sources (i.e. monthly natural gas usages, records of operating hours for the engine).

Gestamp has elected to maintain the same compliance option for the new generator of purchasing a certified compliance engine to the emission standards of Subpart JJJJ of Part 60. Gestamp had provide a Certificate of Conformity of the model engine used in the generator set, which has been issued an Engine Family No. of GCEXB05.0GDA.

Changes to Permit R13-3149 are limited to updating Table 1.0 for the new sources, incorporating 26S (7th Hot Stamping Line) to Condition 4.1.1., incorporating 27S (emergency generator) to Conditions 4.1.4. & 4.2.2., and increase the fuel usage limits in 4.1.1.d and 4.2.1.

Table #4 Maximum Consumption Rate of Natural Gas	
Sources	Annual Maximum Usage (Million cubic Feet/year)
Existing Hot Stamping Lines	371.0
New Hot Stamping Line	61.8
Existing Heaters	472.4
Existing Emergency Generators *	1.94
New Emergency Generator *	0.3
Total	907.44

* - Emergency Generators are based on only 500 hours of operation.

The applicant has satisfied the requirements of Section 4 of 45 CSR 13 to update Permit R13-3149. This writer recommends to the Director to issue Permit R13-3149A as the DAQ’s response to Gestamp’s Administrative Update file on November 21, 2016 in accordance with Rule 13.